

PATENT

Atty Docket No.: 10011618-1

App. Scr. No.: 09/871,778

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the amendments above and the following remarks. By virtue of the amendment, claims 1, 2, 4-9 and 11-15 are pending in the present application of which claims 1, 5, 8, 11, and 14 are independent. Claims 3, 10 and 16 have been canceled.

Claims 1, 2, 5, 8, 9, 14 and 15 were rejected under 35 U.S.C. § 102(c) as being anticipated by Bracha et al. (6,601,114).

Claims 3, 4, 6, 7, 10-13 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bracha et al. in view of Levy (6,092,147).

The above rejections are respectfully traversed for at least the reasons set forth below.

Examiner Interview Conducted

The Applicant wishes to thank Examiner Rampuria and Primary Examiner Khatri for granting the personal interview conducted on May 23, 2005. During the interview, claim 1 and dependent claim 3 were discussed. Primary Examiner Khatri indicated that the combination of claims 1 and 3 is likely allowable. Claim 3 has been combined with claim 1, and claim 3 has been canceled. Claims 1, 2 and 4 are believed to be in condition for allowance.

Claim Rejection Under 35 U.S.C. §102

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. § 102, is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents thereof functioning in substantially the same way

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to produce substantially the same results. As noted by the Court of Appeals for the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. § 102, the Court stated:

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.

Therefore, if the cited reference does not disclose each and every element of the claimed invention, then the cited reference fails to anticipate the claimed invention and, thus, the claimed invention is distinguishable over the cited reference.

Claims 1, 2, 5, 8, 9, 14 and 15 were rejected under 35 U.S.C. § 102(e) as being anticipated by Bracha et al.

During the interview, it was agreed that the features of claim 3 likely include allowable subject matter. Claim 1 has been amended to include the features of claim 3.

Claim 1 recites, *inter alia*,

wherein said code verifier is further configured to analyze said program and to group said instructions of said program into a plurality of code blocks, wherein said code verifier is configured to translate said code blocks into type signature blocks, each of said type signature blocks having one or more type signatures of said plurality of type signatures, said code verifier further configured to compose the type signatures of each of said type signature blocks into a single respective composed type signature.

Bracha et al. fails to teach grouping instructions into code blocks, translating the code blocks into type signatures, and composing type signatures for a block into a single composed type signature. Accordingly, claims 1, 2 and 4 are believed to be allowable.

Independent claim 5 recites, *inter alia*,

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a code verifier configured to analyze a code block of said program and to translate instructions within said code block into a plurality of type signatures, said code verifier further configured to compose said type signatures into a single composed type signature and to detect a type error by analyzing said type signatures.

Bracha et al. fails to teach a code verifier configured to translate instructions within a code block into a plurality of type signatures, and composing the type signatures into a single composed type signature. In fact, the rejection of claim 11 states that Bracha does not explicitly disclose composing said type signatures into a single composed signature. The rejection of claim 11, then combines Levy with Bracha et al. to allegedly teach this feature. Thus, the Examiner agrees that Bracha et al. fails to teach composing a plurality of type signatures into a single type signature. Accordingly, claims 5-7 are believed to be allowable.

Independent claim 8 recites features similar to claim 1, including,

- grouping said instructions of said program into a plurality of code blocks;

- translating said code blocks into type signature blocks, each of said type signature blocks having one or more type signatures of said plurality of type signatures; and

- composing the type signatures of each said type signature blocks into a single respective composed type signature.

Independent claim 14 recites features similar to claim 1, including,

- means for grouping said instructions of said program into a plurality of code blocks;

- means for translating said code blocks into type signature blocks, each of said type signature blocks having one or more type signatures of said plurality of type signatures; and

- means for composing the type signatures of each said type signature blocks into a single respective composed type signature.

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Bracha et al. fails to teach grouping instructions into code blocks, translating the code blocks into type signatures, and composing type signatures for a block into a single composed type signature. Accordingly, claims 8, 9, 14 and 15 are believed to be allowable.

Claim Rejection Under 35 U.S.C. §103

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in MPEP § 706.02(j):

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Therefore, if the above-identified criteria are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

Claims 3, 4, 6, 7, 10-13 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bracha et al. in view of Levy.

Independent claim 11 recites, translating said instructions into a plurality of type signatures and composing said type signatures into a single composed type signature. These steps are not taught or suggested by either Bracha et al. or Levy, singly or in combination.

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The rejections of claims 3, 4, 6, 7, 10-13 and 16 state that Levy discloses an analogous computer system composing type signatures into a single type signature in column 7, lines 25-34. Specifically, the rejection states Levy discloses "a message authentication code of pre-defined form computed with a block cipher algorithm or a digital signature of a predefined form computed with an asymmetric algorithm." However, Levy fails to teach or suggest that the message authentication code of pre-defined form computed with a block cipher algorithm or a digital signature of a predefined form computed with an asymmetric algorithm comprise generating type signatures and composing the type signatures into a single type signature. Accordingly, claims 4, 6, 7 and 10-13 are believed to be allowable.

Furthermore, Bracha et al. in view of Levy fails to teach or suggest many of the features of claims 3, 4, 6, 7, 10 and 16, such as translating code blocks into type signatures, composing code type signatures for each code block into a single type signature, making a determination as to whether an input type constraint of a first type signature is acceptable to an output type description of a second type signature, and a type signature including a description indicative of a type of an input consumed by an instruction when the instruction is executed and another of type signature including a description indicative of a type of an output produced by another instruction when the other instruction is executed.

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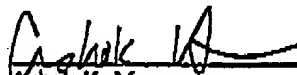
In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Dated: August 5, 2005

By


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